

Comparison of NRC and EPA Waste Tracking and Related Record Keeping Requirements

I. Background and Purpose

EPA is proposing a rule to provide flexibility under the RCRA regulations for the storage and disposal of low-level mixed waste (LLMW). LLMW is waste that contains both a hazardous waste subject to RCRA and a low-level waste (LLW) subject to the Atomic Energy Act (AEA). The Agency is proposing to establish procedures and conditions that waste generators and treaters can follow to exempt their LLMW from RCRA hazardous waste storage and disposal requirements, i.e., conditional exemptions from RCRA requirements. The conditional exemptions are based on the finding that there are similar storage and disposal requirements under AEA that will provide the same level of protection as that offered by the RCRA hazardous waste requirements.

As mentioned above, generators or treaters who claim the exemption must comply with all of the conditions established for the exemption. One of the critical conditions is that the exempted waste must be disposed of in a low level radioactive waste disposal facility (LLRWDF) licensed by the NRC, or its Agreement States. Therefore, it is important that we have records indicating that the exempted waste did arrive at the designated disposal facility. These records will allow regulatory agencies to verify that the party who claimed the exemption has met the conditions of the exemption. Inspection of these records will also allow the regulatory agencies to take proper enforcement actions against those who violate the exemption conditions.

However, because the exempted waste is no longer a RCRA hazardous waste, the shipment of this waste does not need to be accompanied by a RCRA hazardous waste manifest. Without the tracking paper and records indicating the movement and final disposal of the exempted waste, it would not be possible to keep track of the exemption and ensure compliance. Even though the RCRA hazardous waste manifest requirements are not applicable to the exempted waste, its tracking and record keeping aspects of the requirements are appropriate for the exempted waste. However, in an effort to reduce duplicative regulatory requirements for mixed waste, we tried to identify such similar requirements under the NRC regulations before requiring additional exemption conditions under RCRA. Therefore, we evaluated the NRC's radioactive waste manifest and the related record keeping requirements to determine whether the NRC's requirements would fulfill the waste tracking and record keeping needs of the RCRA exempted waste. This approach is possible because the waste exempted from the RCRA hazardous waste requirements remains a radioactive waste and is required to comply with the NRC's manifest and the related record keeping requirements.

EPA has developed this document, to present our findings that the NRC and EPA waste tracking and the related record keeping requirements are comparable. As a result, we are able to rely on the waste tracking and related record keeping requirements provided by the NRC LLW manifest requirements to address the same requirements necessary for the RCRA exempted waste. The only additional requirement that we included for the proposal is for the party claiming the exemption to provide written documentation indicating the exempt status of each shipment of the waste and the associated shipment number. This required documentation will allow linkage of shipments of each RCRA exempted waste to a specific shipment of low level radioactive waste which otherwise would contain only low level radioactive waste.

In the following sections, we first provide a brief overview of the RCRA and NRC manifest regulatory requirements. We then provide a comparison of NRC and EPA waste tracking and related record keeping requirements to demonstrate that NRC's manifest and related record keeping requirements will fulfill the same needs as the RCRA manifest for purposes of the Mixed Waste Disposal Proposal.

II. Overview of RCRA and NRC Waste Tracking Requirements

RCRA Tracking Requirements

EPA established the RCRA manifesting procedures at 40 CFR Parts 262 through 265 to provide a cradle-to-grade tracking system for hazardous waste.

Generators are required under Part 262 to complete a uniform hazardous waste manifest for each shipment of hazardous waste sent offsite. Generators must keep a copy of the manifest signed by the transporter who picks up the waste and, subsequently, by the destination site (also referred to as the designated TSDF in the regulations) who must return a signed copy to the generator within a specified time frame. Under Part 263, hazardous waste transporters must sign and date the manifest at pickup, carry it to the designated TSDF, and keep a copy. Under Parts 264 and 265, designated TSDFs must sign and date the manifest, note any discrepancies, return a copy to the generator, and keep a copy. Waste handlers must also comply with other requirements as specified in the regulations, such as submitting reports (e.g., discrepancy reports) to EPA or authorized States and notifying authorities of emergencies.

NRC Tracking Requirements

NRC's tracking requirements were established to provide a closed-loop tracking system for LLW. Under 10 CFR Part 20, Appendix G, generators of LLW must prepare and transmit a uniform low-level radioactive waste manifest for shipment to the LLRWDF. The manifest must be sent via the transporter to the destination site. In addition to the copy provided to the transporter, the manifest may also be sent in advance of the shipment (e.g., electronically). The generator, transporter, and destination site must keep a copy of each manifest. The destination site must also send a signed acknowledgment of receipt to the generator within a specified time frame and notify the generator if any discrepancies are identified between the shipment and manifest. Generators must investigate shipments for which an acknowledgment of receipt from the destination site is not received within a specified time frame. Destination sites must investigate shipments that are not delivered within a specified time frame after receipt of the generator's advance manifest.

III. Observations of Comparability

We have compared the NRC and RCRA manifest regulations to determine whether their procedures are comparable regarding confirmation of waste receipt at the disposal facility and record keeping requirements. From the comparison, we have found that the NRC procedures are as stringent as, if not more stringent than, the RCRA procedures. In arriving at this determination, we first identified the relevant RCRA procedures and then identified comparable NRC procedures, if any. This enabled us to perform a side-by-side comparison, which is presented in the attached table. The table crosswalks NRC requirements to RCRA requirements and provides brief comments. We summarize the major observations in the following paragraphs:

- Both RCRA and NRC regulations require “cradle-to-grave” tracking of waste shipments by preparing a manifest for each waste shipment. Each person who handles the waste must sign and keep a copy of the RCRA or NRC manifest.
- NRC and RCRA regulations both require the destination site to confirm receipt of the shipment by notifying the generator/shipper of the waste. NRC notification requirements are more stringent in that they require notification within one week, whereas RCRA requires notification within 30 days.
- RCRA regulations require large quantity generators to investigate shipments for which the generator does not receive a copy of the signed manifest from the designated facility within 35 days of the date the waste was accepted by the initial transporter. Small quantity generators are not required to conduct an investigation. Large and small quantity generators must notify EPA within 45 and 60 days, respectively, if the generator does not receive a copy of the signed manifest from the designated facility owner/operator.

By comparison, NRC regulations are more stringent because all shippers must investigate shipments if acknowledgment of receipt is not received within 20 days of shipment. In addition, NRC regulations require investigation of shipments within 20 days after transfer, as opposed to 35 days for large generators under RCRA. The shipper must also file a written report with NRC within 2 weeks of completion of the investigation.

- NRC regulations include procedures for shippers to send advance copies of the manifest to the destination site and for the disposal site to contact the generator and NRC if the shipment has not been received within a specified time frame. No comparable requirements exist in the RCRA regulations.
- Both RCRA and NRC regulations require the disposal facility to notify the shipper of discrepancies between the manifest and shipment received.
- RCRA and NRC manifests must be kept in the files for at least three years. However, NRC regulations also specify that certain manifests must be kept in the files for potentially longer periods (e.g., until license termination).

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Citation in RCRA regulations	Summary of RCRA Requirement	Citation in NRC Regulations	Summary of NRC Requirement	Comment
GENERATORS				
262.20	A generator who transports, or offers for transportation, hazardous waste for offsite treatment, storage or disposal must prepare a RCRA manifest, and sign and date the manifest before transmittal	Appendix G, III.A.4	A waste generator who transports, or offers for transportation, LLW intended for disposal must prepare a manifest	Both RCRA and NRC regulations require preparation and transmittal of a manifest for shipments destined for disposal
262.40	A generator must keep a copy of each manifest for three years	Appendix G, III.A.8	Generators must keep records of shipments for three years or until expiration of the license, as specified	NRC requirements are as stringent as, if not more stringent than, RCRA requirements for record keeping

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Citation in RCRA regulations	Summary of RCRA Requirement	Citation in NRC Regulations	Summary of NRC Requirement	Comment
262.42	In the event a large quantity generator does not receive a copy of the signed manifest from the designated facility owner/operator within 35 days of the date the waste was accepted by the initial transporter, the large quantity generator must contact the transporter and/or the owner/operator of the designated facility to determine the status of the hazardous waste. The large quantity generator must submit an exception report to EPA if he/she has not received a copy of the signed manifest from the designated facility owner/operator within 45 days of the date the waste was accepted by the initial transporter and must retain a copy of the exception report for at least three years from the due date of the report	Appendix G, III.A.9 and III.E	For shipments for which acknowledgment of receipt has not been received by the shipper within 20 days after transfer, the shipper must investigate, trace and report the shipment. The shipper must file a written report with NRC within 2 weeks of completion of the investigation	<p>NRC regulations are more stringent than RCRA because shippers must investigate a shipment if the acknowledgment is not received in 20 days, whereas RCRA regulations specify 35 days before investigation must begin</p> <p>RCRA regulations require reporting within 45 days of shipment, while NRC regulations require reporting within 2 weeks of completion of investigation</p>

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Citation in RCRA regulations	Summary of RCRA Requirement	Citation in NRC Regulations	Summary of NRC Requirement	Comment
262.42	In the event a small quantity generator does not receive a copy of the signed manifest from the owner/operator of the designated facility within 60 days of the date the waste was accepted by the initial transporter, he/she must submit to the EPA Regional Administrator a legible copy of the manifest with some indication that he has not received confirmation of delivery.	Appendix G, III.A.9 and III.E	For shipments for which acknowledgment of receipt has not been received by the shipper within 20 days after transfer, the shipper must investigate, trace and report the shipment. The shipper must file a written report with NRC within 2 weeks of completion of the investigation	<p>NRC regulations are more stringent because <u>all</u> shippers must investigate shipments if acknowledgment of receipt is not received within 20 days of shipment, whereas RCRA does not require small generators to investigate</p> <p>NRC regulations require reporting within 2 weeks of completion of the investigation, whereas RCRA requires small generators to report within 60 days of shipment</p>
DISPOSAL FACILITY				

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Citation in RCRA regulations	Summary of RCRA Requirement	Citation in NRC Regulations	Summary of NRC Requirement	Comment
264.71 and 265.71	Within thirty days after delivery, the TSDF must send a copy of the manifest to the generator	Appendix G, III.D.1 and III.D.3	<p>Disposal facility must acknowledge receipt of materials within one week of receipt by sending a signed copy to the shipper</p> <p>The disposal facility must notify the shipper and NRC when any shipment, or part of shipment, has not arrived within 60 days after receipt of any advance manifest, unless otherwise notified by shipper</p>	<p>NRC regulations are more stringent than RCRA. NRC and RCRA regulations both require the destination site to confirm receipt of the shipment by notifying the generator. However, NRC requires notification within one week, whereas RCRA requires notification within 30 days</p> <p>Further, NRC regulations contain requirements for the disposal facility to make notifications regarding advance copies of the manifest. RCRA does not contain a comparable requirement</p>
264.71 and 265.71	The TSDF must note any significant discrepancies on the manifest copy, which must be returned to the generator	Appendix G, III.D.1	If any discrepancy exists between the manifest and the shipment, the disposal facility must return copies to the shipper indicating the discrepancy	Both RCRA and NRC regulations require the disposal facility to notify the shipper of discrepancies between the manifest and shipment received
264.71 and 265.71	The TSDF must retain a copy of the manifest for at least three years from delivery	Appendix G, III.D.2	Land disposal facility must keep the manifest on file until license termination	NRC and RCRA regulations both require record keeping, except that NRC generally requires longer record keeping period (i.e., 3 years for RCRA vs. effective life of license for NRC)